

**Remarks:**

**Claim Objections**

Claim 19 stands objected to as including only a preamble. Claim 19 is hereby canceled.

**Claim rejections-35 USC §102**

Claims 1-6 stand rejected under 35 USC §102(b) as being anticipated by U.S. Patent 5,659,478 (Pennisi et al). This rejection is respectfully traversed.

Claims 1-6 have been amended to distinguish over the reference cited by the Examiner.

The present invention involves methods for manufacturing a work piece and then, in a separate set of operations, finishing that piece to remove imperfections such as burrs and the like. A second embodiment of the present invention involves taking an existing work piece and performing finishing operations upon it.

*Pennisi et al* teach and describe a method for manufacturing a work piece. This is a starting point for applicant's invention.

To more clearly reflect the nature of applicant's invention, claims 1-6 have been amended to use the term "finishing" instead of the term "machining," it being understood that the finishing operations referred to are common machining operations but are performed *after* the workpiece has been manufactured. *Pennisi et al* teach the manufacture of plastic products and the repetition of the manufacturing steps (at box 235 of Fig. 2) until a satisfactory, "rapidly realized product" is pro *Pennisi et al*. neither teach nor suggest a process for removing surface imperfections such as burrs or nicks that occur because of the material from which the product is made and the fact that the tools used in the process creates these surface imperfections in an otherwise satisfactory workpiece. In other words, no matter how many times the manufacturing process is repeated (as taught by *Pennisi et al* ), parts such as complex spiral gears will still have to undergo finishing operations such as deburring and polishing to meet final production specifications.

As an example with respect to Claim 1, the Examiner has cited elements 210, 212, 215, 220, 222, 223 and columns 6, lines 52-59 of *Pennisi et al* as anticipating applicant's step of creating an inspection data file. Applicant respectfully contends that these are the steps used to create the original workpiece, not to allow the original workpiece to be inspected and then finished according to the required tolerances for the final product. To further clarify this point,

claim 1 has been amended to include the step of "selecting the work piece."

Applicant respectfully contends that claims 2 and 3, as amended, are allowable as claims depending from a otherwise allowable claim.

Claim 4 stands rejected under 35 USC §102(b) over reference to *Pennisi et al.* This rejection is respectfully traversed.

Claim 4 has been amended to identify the operations carried out on the work piece as finishing operations as described above. In particular, the Examiner has identified element 230 in Fig. 2 of *Pennisi et al* as anticipating applicant's use of a third computer program to operate a computer controlled machining device to finish the existing work piece.

Applicant respectfully contends that element 230 of *Pennisi et al* simply requires the remanufacturing of a part until it has reached an acceptable configuration. There is no teaching or suggestion in *Pennisi et al* to further finish the completed product to meet a final set of selected tolerances for that product. Accordingly, applicant's invention is distinguishable over the *Pennisi et al* reference and claim 4 should be allowed.

In like fashion, claims 5 and 6 should be allowed as amended, as depending from an otherwise allowable independent claim.

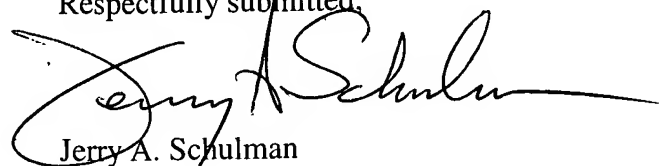
Applicant submits herewith an information disclosure statement listing the references disclosed in the application and including copies of the articles entitled "Robotic Automatic Deburring of Aerospace Gears" and "New Gear Software", both published in *Gear Technology* magazine. A check in the amount of \$180 is enclosed as required by 37 CFR 1.17(p).

Applicant respectfully contends that the application, with claims 1-6 as amended, and with claim 19 as cancelled, is in condition for allowance.

A newly-typed set of claims 1-18 is attached with the amendments described above incorporated therein.

Applicant respectfully contends that the application, with claims 1-6 as amended, and with claim 19 cancelled, is now in condition for allowance. Should the Examiner have any further questions, please telephone the undersigned directly.

Respectfully submitted,



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